In re: Cho et al.

Serial No.: To Be Assigned Filed: Concurrently Herewith

Page 2 of 13

In the Specification:

Please delete the paragraph entitled Related Application at page 1, line 1.

Please add the following paragraph at page 1, line 1:

Claim for Priority and Related Application

This application claims priority to and is a divisional of parent application number 09/923,670, filed August 7, 2001, the disclosure of which is hereby incorporated herein by reference. In addition, this application claims the benefit of Korean Application No. 2000-46615, filed August 11, 2000, the disclosure of which is hereby incorporated herein by reference.

Please replace the paragraph beginning at line 15 of page 3 as follows:

In still other embodiments of the present invention, an integrated circuit comprises a ferroelectric dielectric region on a substrate, a first metal oxide layer directly on a surface of the ferroelectric dielectric region, and a second metal oxide layer on the first metal oxide layer. The first metal oxide layer is configured to enable a remnant polarization of the ferroelectric dielectric region to increase during an annealing of the substrate before formation of the second metal oxide layer. The first metal oxide layer preferably is thick enough to substantially impede diffusion of hydrogen into the ferroelectric dielectric region in, for example, subsequent fabrication operations. The first metal oxide layer may comprise a metal oxide selected from the group consisting of Al₂O₃, TiO₂, ZrO₂, [Ta₅O₃] Ta₂O₅ and CeO₂. Similarly, the second metal oxide layer may comprise a metal oxide selected from the group consisting of Al₂O₃, TiO₂, ZrO₂, [Ta₅O₃] <u>Ta₂O₅</u> and CeO₂. The first and second metal oxide layers may be formed from the same material. In embodiments of the invention, the second metal oxide layer is thicker than the first metal oxide layer. For example, the first and second metal oxide layers may comprise respective first and second metal oxide layers, with the second metal oxide layer being at least about twice as thick as the first metal oxide layer, and less than about ten times thicker than the first metal oxide layer.

Please replace the paragraph beginning at line 12 at page 13 as follows:

The first blocking layer 40 and the first protection layer 42 may be formed of the same material. The first blocking layer 40 and the first protection layer 42 may be formed of

In re: Cho et al.

Serial No.: To Be Assigned Filed: Concurrently Herewith

Page 3 of 13

metallic oxide, preferably, Al₂O₃, TiO₂, ZrO₂, [Ta₅O₃] <u>Ta₂O₅</u>, or CeO₂. The first blocking layer 40 and the first protection layer 42 may be formed using a method such as an atomic layer deposition method, a low or high pressure chemical vapor deposition method or a plasma chemical vapor deposition method. The first blocking layer 40 may be deposited by one of the methods mentioned above, and then annealed. It is preferable to use a rapid thermal process for the annealing. The first protection layer 42 may be deposited by one of the methods mentioned above, and may be selectively annealed.

Please replace the paragraph beginning at line 7 at page 16 as follows:

Like the first blocking layer 40 and the first protection layer 42, the second blocking layer 48 and the second protection layer 50 may be formed of the same material. Like the first blocking layer 40 and the first protection layer 42, the second blocking layer 48 and the second protection layer 50 may be formed of metallic oxide, preferably, Al₂O₃, TiO₂, ZrO₂, [Ta₅O₃] Ta₂O₅, or CeO₂. The second blocking layer 48 and the second protection layer 50 may be formed using a method such as an atomic layer deposition method, a low or high pressure chemical vapor deposition method or a plasma chemical vapor deposition method. The second blocking layer 48 may be deposited by one of the methods mentioned above and annealed. It is preferable to use a rapid thermal process for the annealing. The second protection layer 50 may be deposited by one of the methods mentioned above and may be selectively annealed.

Please replace the paragraph beginning at line 13 at page 18 as follows:

The protection spacer 240 and the blocking spacer 242 may be formed of the same material as the first protection layer 42 and first blocking layer 40 of the first encapsulating layer and the second protection layer 50 and second blocking layer 48 of the second encapsulating layer illustrated in FIGS. 2A through 2C. For example, they may be formed from a metallic oxide, preferably Al₂O₃, TiO₂, ZrO₂, [Ta₅O₃] <u>Ta₂O₅</u>, or CeO₂.

Please replace the paragraph beginning at line 20 of page 19 as follows:

The first blocking layer 248 and the first protection layer 250 may be formed of the same metallic oxide as the protection spacer 240 and the blocking spacer 242, preferably, of Al₂O₃, TiO₂, ZrO₂, [Ta₅O₃] <u>Ta₂O₅</u>, or CeO₂. The first blocking layer 248 and the first protection layer 250 may be formed by a method such as a high pressure chemical vapor

In re: Cho et al.

Serial No.: To Be Assigned Filed: Concurrently Herewith

Page 4 of 13

deposition method, a low pressure chemical vapor deposition method, a plasma chemical vapor deposition method or an atomic layer deposition method.